REMARKS

A.   Overview

Claims 1-20 were pending in the application when the Office Action was mailed on October 30, 2007. The Office Action rejects claims 1-20. Applicants herein amend claims 1, 2, 4, 6, 7-10, 12-14, and 16-19 and present new claims 21-31. Accordingly, claims 1-31 are currently pending.

The Office Action states that the rejections of claims 1 and 12 under 35 U.S.C. § 102(e) over U.S. Patent No. 7,016,277 ("Chou") presented in the Office Action mailed on May 23, 2007 still hold. Applicants appreciate that the Examiner has relied upon new grounds for rejecting the pending claims. To the extent that the claims are rejected based on references cited in the previous Office Action, applicants note that every claim element of claims 1 and 12 is neither taught nor suggested by Chou. For example, the Office Action does not point to, and applicants are unable to locate, a portion of Chou that teaches "comparing the average period value with the period count value for outputting a first control signal" as claim 1 now recites. Similarly, the Office Action does not point to, and applicants are unable to locate, a portion of Chou that teaches "the logic level of the first control signal is determined by comparing the period count value with an average period value" as claim 12 now recites. Furthermore, applicants note that Chou and the instant application were subject to assignment to the same entity at the time the instant application was filed. (See Reel/Frame 014481/0453 and Reel/Frame 013368/0736).

The rejections presented in the Office Action mailed on October 30, 2007 are reflected in the following table:

Claims	Basis	References
1, 2, 12, 13, and 15	35 U.S.C. § 102(e)	U.S. Patent Publication 2003/0117915 ("Minamino")
6, 11, 14, 18, 20	35 U.S.C. § 103(a)	Minamino

3 and 5	35 U.S.C. § 103(a)	Minamino and US Patent No. 6,754,147 ("Hsu")
7 and 19	35 U.S.C. § 103(a)	Minamino and U.S. Patent No. 7,039,380 ("Jahene")
8, 9, 16, and 17	35 U.S.C. § 103(a)	Minamino and U.S. Patent No. 6,765,861 ("Van Vlerken")
10	35 U.S.C. § 103(a)	Minamino and U.S. Patent No. 6,587,417 ("Okamoto")
4	35 U.S.C. § 103(a)	Minamino, Hsu, and Okamoto

Applicants respectfully traverse these rejections. Nevertheless, applicants herein amend the claims to further clarify the subject matter for which they seek protection. For reasons discussed in detail below, applicants submit that each of the pending claims is patentable over the cited prior art and respectfully request reconsideration and withdrawal of these rejections.

B.   Prior Art Rejections

Minamino is directed to a technique for reproducing information from a high-density optical disc. (Minamino, ¶ [0002]). High-density optical discs record information in a spiraling track groove located on the surface of the disc. (Minamino, ¶ [0004]). In some cases, this groove is formed in a wave-like "wobble" manner. (Minamino, ¶ [0004]). Addressing bits are stored on the disc by modulating the wobble. (Minamino, ¶ [0004]). In Minamino, addressing bits are stored in the wobble in two forms in such a way that when one of these wobble forms is expressed as a Fourier series using first fundamental wave and n^{th} harmonics, the other form can be created by "reversing the polarity of even harmonics." (Minamino, ¶ [0037]). As data is read from the disc, Minamino's technique uses the polarity of the wobble's second harmonic to determine the value of an address bit. (Minamino, ¶¶ [0054]-[0055]).

In contrast, applicants' technology is directed to a technique for generating a non-phase-modulated wobble clock capable of avoiding interference from a phase-modulated wobble signal. (Specification, p. 1, ll. 8-12). In some cases, addressing information bits

are stored in a wobble of an optical disc's data groove by modulating the phase of the wobble. (Specification, p. 4, ll. 1-2). For example, a "0" may be indicated as a portion of the wobble in phase with the rest of the wobble while a "1" is indicated by a portion of the wobble that is, for example, 180 degrees out of phase. To decode addressing bits encoded in the modulated wobble, a stable "wobble clock" must be generated and compared to a signal generated from the wobble. (Specification, p. 5, ll. 22-26). Because the wobble signal itself is unstable (i.e., phase-modulated), it cannot be used as a wobble clock directly. Applicants' technology produces a wobble clock based on a wobble signal by calculating an average period for the wobble signal and synchronizing the wobble clock with the wobble signal when the period of the incoming wobble signal is relatively close to the average period of the wobble signal. (Specification, p. 15, ll. 22-31). However, when the period of the wobble signal deviates substantially from the average period, the wobble clock is not synchronized with the wobble signal and the clock is maintained at its previous rate. In this manner, the wobble clock is unaffected by the modulation of the wobble signal. (Specification, p. 15, ll. 5-8).

Claims 1 and 12 recite "calculating a period count value by counting a period of the input signal according to a reference clock having a predetermined frequency, calculating an average period value by averaging a plurality of the period count values, and comparing the average period value with the period count value for outputting a first control signal." Similarly, claim 12 recites "wherein a period count is generated by counting a period of the input signal according to a reference clock having a predetermined frequency and the logic level of the first control signal is determined by comparing the period count value with an average period value." The Office Action relies on Figure 4 and paragraph [0050] of Minamino as disclosing these features. Applicants respectfully disagree that the relied upon portions of Minamino disclose these features. Figure 4 includes a "counter" that is used to "count clock numbers" in a process for determining an "average of phase errors," not an average period value. (Minamino, ¶ [0054]). Minamino does not use the counter to count a period of an input signal according to a reference clock or to determine an average period value as recited. Paragraph [0050] describes timing signals generated by counting

wobble clocks. These clocks, however, are not used as reference clocks to count the period of an input signal. Minamino fails to teach or suggest counting the period of an input signal and comparing the period to an average period value to determine a level for a control signal. Accordingly, claims 1, 12, and 21 are patentable over Minamino, as are their dependent claims 2-11, 13-20, and 22-31. Applicants respectfully request that the Examiner reconsider and withdraw these rejections.

C.   Conclusion

In view of the foregoing, the pending claims comply with the requirements of 35 U.S.C. §§ 102 and 103 and are patentable over the applied art. Applicants accordingly request reconsideration of the application and a mailing of a Notice of Allowance. If the Examiner has any questions or believes a telephone conference would expedite prosecution of this application, the Examiner is encouraged to contact Chun M. Ng at (206) 359-6488.

Respectfully submitted,

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